

- **A. nyensis* Barneby, $2n=26$, NV, Clark Co., N side of Virgin River, 0.5 km SW of Riverside bridge, 729-1.
- **A. pauperculus* E. Greene, $2n=24$, CA, Butte Co., 15 km SE of Chico, 694-1; Tehama Co., 5 km SW of Dales, 698-1.
- **A. rattani* A. Gray var. *rattani*, $2n=22$, CA, Mendocino Co., Middle Fork Eel River, 1.4 km SE of Dos Rios, 703-1.
- **A. rattani* var. *jepsonianus* Barneby, $2n=22$, CA, Colusa Co., 10.6 km S of Bartlett Springs Jct. on Bear Valley-Lodoga Rd., 667-3; $n=11$, Glenn Co., 5.3 km N of Stonyford on Elk Creek Rd, 699-1; $2n=22$, Lake Co., 0.7 km N of Hwy 20 on Walker Ridge Rd, 707-1.
- **A. tener* A. Gray var. *tener*, $n=11$, CA, Merced Co., San Luis Island, 22.4 km N of Los Banos on Hwy 165, 690-1; $2n=22$, Solano Co., "Jepson's Prairie", S of Lake Olcutt, 691-1.
- A. tener* var. *titi* (Eastw.) Barneby, $2n=22$, CA, Monterey Co., Monterey Peninsula, 17 Mile Drive, Bird Rock, *Yadon s.n.*

Sect. *Microlobium*

- A. gambelianus* E. Sheldon, $2n=22$, CA, Lake Co., 4.5 km NE of Middletown, 708-2.

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NOTEWORTHY COLLECTIONS

ARIZONA

ASCLEPIAS CUTLERI Woodson (ASCLEPIADACEAE).—Apache Co., Nokaito Bench 14.5 km E of Mexican Water Chapter House along S side of old road to Teec Nos Pos and 9.8 km E of US 191, 36°59'30"N, 109°30'30"W, 1580 m, 15 Jun 1982, *A. M. Phillips, III (AMP) 82-152* and *N. J. Brian (MNA)*; 6.0 km by dirt road SW of Rock Point bridge, dune area E of road, behind small outcrop, locally common, 36°41'N, 109°40'W, 1670 m, 15 Jun 1982, *AMP 82-163* and *Brian (MNA)*; 1.6 km W of Rock Point bridge, in sand dunes crossing road, 36°43'N, 109°39'W, ca. 1600 m, 15 Jun 1982, *AMP 82-164B* and *Brian (MNA)*.

Previous knowledge. Originally discovered in 1937 at Nokaito Bench (*Peebles 13581* and *Smith, ARIZ*). The Rock Point population, approximately 50 km to the SW, was found in 1938 (*Cutler 2177*; MO, Type). Also known from 3 collections from Grand and San Juan cos., UT (BRY).

Significance. Our 1982 collections are apparently the first records of the species in AZ since the original and only known collections were made in 1937–1938. The Rock Point sites were searched in 1981 without finding plants; apparently they remained dormant after the dry winter of 1980–1981, whereas the moist winter of 1981–1982

was sufficient for growth. Listed as a Category 2 Candidate species in U.S. Fish & Wildlife Service Notice of Review (Federal Register, 27 Sep 1985; 50 FR 39526).

DUDLEYA PULVERULENTA (Nutt.) Britton & Rose subsp. *ARIZONICA* (Rose) Moran (CRASSULACEAE).—Mohave Co., Lower Granite Gorge of the Grand Canyon, in crevices in schist canyon walls across Colorado River from Separation Canyon, Grand Canyon River Mile 239.5 Left (distance downstream from Lees Ferry), 35°49'N, 113°34'W, about 20 plants, flowering, 300 m, 8 May 1979, *AMP* and *B. G. Phillips (BGP)* 79-376 (MNA).

Previous knowledge. Nearest previously recorded localities were Yucca, Mohave Co. (type locality of *D. arizonica* Rose) and Newberry Mts., Clark Co., NV.

Significance. First record for the Grand Canyon and an eastward range extension of approximately 120 km. Sparsely distributed on canyon walls for about 5 km downstream from Separation Canyon. Locality discovered by S. W. Carothers in 1979.

ERIOGONUM ZIONIS J. Howell var. *ZIONIS* (Polygonaceae).—Coconino Co., locally abundant in open woodland in deep, sandy soil on the Paris Plateau with pinyon and juniper, T39N, R4E, sect. 21, 2135 m, 3 Oct 1979, *R. K. Gierisch* 4690 (ASC, ASU); Paria Plateau at top of Vermilion Cliffs, 7.3 km SW of Jarvis Ranch, T39N, R4E, SW¼ sect. 22, 2135 m, 21 Sep 1983, *AMP* and *BGP* 83-352 (MNA).

Previous knowledge. Known only from Kane and Washington cos., UT. *Eriogonum zionis* var. *coccineum* J. T. Howell, with red flowers, is locally common at isolated sites along the rims of Kanab Canyon and the Grand Canyon.

Significance. First records for AZ.

EUPHORBIA ERIANTHA Benth. (EUPHORBIACEAE).—Mohave Co., Peach Springs Wash, 1 km S of junction with Diamond Creek, 520 m, 24 Sep 1972, *T. R. Van Devender s.n.* (ARIZ); along rocky floor of small, steep, dry drainage about 400 m from the Colorado River at Grand Canyon River Mile 215.5 Right, across river from Three Springs Canyon and about 10 River Miles upstream from Diamond Creek, 35°53'N, 113°19'W, in fruit, 490 m, 9 May 1987, *AMP* 87-18 (MNA).

Previous knowledge. Distributed in desert areas of Trans-Pecos TX, S, AZ, SE CA, and Mexico (B.C., Son., and Coah.).

Significance. First records for the Grand Canyon and Mohave County; northward range extension of about 300 km from nearest known localities in La Paz Co., AZ.

EUPHORBIA ESULA L. (EUPHORBIACEAE).—Coconino Co., Kaibab Plateau, in fenced meadow 0.4 km south of Big Springs field station, Kaibab National Forest, along FS route 422, T37N, R1W, SE¼ sect. 13, 2135 m, 18 Jun 1970, *AMP* and *BGP* 53 (ARIZ, ASC, ASU, UNLV), and 29 Sep 1980, *AMP* and *BGP* 80-140 (MNA).

Significance. First AZ record for this widely established Eurasian species.

FLAVERIA MCDUGALLII Theroux, Pinkava & Keil (COMPOSITAE).—Coconino Co., seep above Colorado River at Grand Canyon Mile 175 Left, 36°14'N, 113°02'W, in open steep drainage, 550 m, 13 Oct 1978, *AMP* 78-778 (MNA); Mohave County, alkaline seeps in 2 levels above Colorado River at Grand Canyon Mile 152 Right, Ledges Camp, about 4 River Miles upstream from mouth of Havasu Creek, 36°21'N, 112°44'W, abundant, 610 m, 10 Apr 1982, *AMP* 82-52 (MNA).

Previous knowledge. Species discovered in 1975 by M. E. Theroux at the type locality in Cove Canyon (Mile 174.2 Right). Also known from Matkatamiba Canyon (Mile 148 Left).

Significance. Both sites reported here are in moist open situations on slopes and benches above the Colorado River, different habitats from the shaded side canyons where the original collections were made. The Ledges Camp site is a much larger and more extensive population than any of the others; in 1982 it included an area of some 4000 m². Listed as a Category 1 Candidate species in U.S. Fish & Wildlife Service Notice of Review (Federal Register, 27 Sep 1985; 50 FR 39526).

LEUCOCRINUM MONTANUM Nutt. (LILIACEAE).—Mohave Co., locally common in open meadow 0.8 km N of Mt. Dellenbaugh fire camp, Shivwits Plateau, 1890 m, 7 Jun 1975, *W. E. Niles and J. S. Holland 592* (UNLV); same locality, T32N, R12W, NW¼ of SE¼ sect. 25, 25 May 1980, *AMP 80-98* (MNA).

Previous knowledge. Occurs from OR to MT and S to CA, NV, UT, and NM.

Significance. First records for AZ.

PENSTEMON LAEVIS Pennell (SCROPHULARIACEAE).—Mohave Co., 8 km by road E of Mt. Trumtull village at junction with Stockade Reservoir Road, roadside and open field, T35N, R9W, SW¼, sect. 21, 1895 m, 5 Jun 1977, *AMP and BGP 77-190* (MNA), det. F. S. Crosswhite, 1977; along Snap Point Road 4.0 km S of junction with Pigeon Canyon Road, T33N, R14W, NW¼ sect. 11, 1370 m, 6 Jun 1977, *AMP and BGP 77-221* (MNA), det. F. S. Crosswhite, 1977; Coconino County, top of Vermilion Cliffs at S edge of Paria Plateau, 7.2 km by road SW of Jarvis Ranch, T39N, R4E, SW¼, sect. 22, 2135 m, 11 Jun 1978, *AMP and BGP 78-586* (MNA), det. N. Holmgren (NY), 1978.

Previous knowledge. Kane and Washington cos., UT; in AZ, reported from the Kaibab Plateau, Coconino Co. (Cronquist et al., Intermountain flora, Vol. 4, 1984) at V. T. Park and near Ryan.

Significance. Extends the range 110 km W of the Kaibab Plateau to the Arizona Strip and 40 km E to the Paria Plateau.

UTAH

CAMISSONIA EXILIS (Raven) Raven (ONAGRACEAE).—Kane Co., Coyote Valley, Chinle clay hills on E side of road, 0.2 km N of AZ–UT border, T44S, R2W, NW¼ of SW¼ of NW¼, sect. 9, 1525 m, 28 May 1982, *AMP and BGP 82-103* (MNA).

Previous knowledge. Known from Jacobs Ranch, E base of Virgin Mts., Mohave Co., AZ (Munz in 1941, type loc.), and Coyote Valley, Coconino Co., AZ, 0.6 km S of AZ–UT border.

Significance. First record for UT. Listed as a Category 2 Candidate species in U.S. Fish & Wildlife Service Notice of Review (Federal Register, 27 Sep 1985; 50 FR 39526).—ARTHUR M. PHILLIPS, III, Museum of Northern Arizona, Route 4, Box 720, Flagstaff, AZ 86001.

CALIFORNIA

ARABIS DISPAR M. E. Jones (BRASSICACEAE).—Tulare Co., on basalts in an open Jeffrey pine forest with western juniper and *Opuntia basilaris*, Black Mt., Dome Land Wilderness, Sequoia National Forest, T24S, R35E, sect. 7, 7840 ft, 23 May 1981, *Shevock 8589* (CAS, GH) and on granitics in an open Jeffrey pine forest, Rockhouse Basin, Dome Land Wilderness, Sequoia National Forest, T23S, R35E, sect. 25, 6000 ft, 6 Jun 1983, *Shevock 10471* (CAS, GH). Determined by Reed Rollins.

Significance. First records for Tulare Co. and the Sierra Nevada. Extends range westward from the Panamint and Argus mts. of Inyo Co. First report for species occurring in a Jeffrey pine forest.

BRICKELLIA OBLONGIFOLIA Nutt. var. *LINIFOLIA* (D. Eaton) Robinson (Asteraceae).—Tulare Co., along the Sherman Pass–Blackrock rd in metamorphic rocky soils on the divide between Woodpecker and Rattlesnake Creek drainages, ca. 1 mi S of Bald Mt. Lookout rd jct, Kern Plateau, Sequoia National Forest, T22S, R34E, sect. 11, 8250 ft, 11 Jul 1981, *Shevock 8803* (CAS, RSA). Verified by J. T. Howell.

Significance. First record for the Kern Plateau and Tulare Co. Extends range southwestward from east base of Mt. Whitney and eastward from Panamint Mts., Inyo Co.

HAPLOPAPPUS GILMANII S. F. Blake (Asteraceae).—Kern Co., base of granitic boulders and gravelly areas in an open mixed conifer forest, east face of Owens Peak along the Sierra Nevada crest, T25S, R35E, sect. 21, 8200 ft, 8 Sep 1987, *Shevock and Jokerst 11809* (CAS, RM, RSA, UC). Verified by Ron Hartman.

Significance. First record for the Sierra Nevada and Kern Co. Extends range southwestward ca. 100 km from Telescope Peak, Death Valley, Death Valley National Monument. First report for species on granitics versus limestones.

HEMITOMES CONGESTUM A. Gray (Ericaceae).—Kern Co., near the summit of Sunday Peak in a red fir forest, Greenhorn Mts., southern Sierra Nevada, Sequoia National Forest, T25S, R32E, sect. 6, 7840 ft, 2 Sep 1982, *Shevock 10107* (CAS, FSC, MO, RSA).

Significance. Southernmost station in CA, and first record for Kern Co. Extends range southward ca. 70 km from Mineral King, Sequoia National Park, Tulare Co.

LEWISIA DISEPALA Rydb. (PORTULACEAE).—Kern Co., along sandy-gravelly granitic ridges in an open pinyon pine woodland associated with *Muilla coronata* near Pinyon Peak, Scodie (Kiavah) Mts., Sequoia National Forest, T26S, R36E, sect. 11, 6350 ft, 21 Mar 1984, *Shevock 10799* (CAS).

Significance. First record for Kern Co. and first report of species occurring in a pinyon pine woodland. Extends range southward from the disjunct populations on the Sequoia National Forest in Tulare Co. (Lloyd Mdw., Dome Rock, and Church Dome) with the major population center on the domes overlooking Yosemite Valley, Yosemite National Park, Mariposa Co.

LEWISIA KELLOGGII M. Brandege (PORTULACEAE).—Madera Co., along sandy-gravelly ridges of Shuteye Peak, Chiquito Ridge, Sierra National Forest, T7S, R23E, sect. 2, 8250 ft, 2 Jul 1988, *Shevock and Bartel 11840* (CAS).

Significance. First record for Madera Co. extending range southward ca. 45 km from the domes overlooking Yosemite Valley, Yosemite National Park, Mariposa Co.

NOTHOLAENA JONESII Maxon (ADIANTACEAE).—Fresno Co., occasional on marble-limestone outcrops associated with *Cheilanthes cooperae*, adj. to the Kings River ca. 6 mi E of Mill Flat, Sierra National Forest, T12S, R27E, sect. 26, 1600 ft, *Shevock 11822* (CAS, RSA).

Significance. First record for Fresno Co. Extends range northward ca. 44 km from marble outcrops adj. to the Middle Fork Kaweah River, Sequoia National Park, Tulare Co. This calciphile occurs as rare disjunct populations on the Sequoia National Forest from the Piute Mts., Kern Co., northward along the Rincon Fault, Kern River Canyon and in the Tule River Canyon, Tulare Co.

PHOENICAILIS CHEIRANTHOIDES Nutt. in Torrey & A. Gray (BRASSICACEAE).—Tulare Co., along the Sherman Pass–Blackrock rd in metamorphic rocky soils on divide between Woodpecker and Rattlesnake Creek drainages, ca. 1 mi S of Bald Mt. lookout rd jct, Kern Plateau, Sequoia National Forest, T22S, R34E, sect. 11, 8250 ft, 27 Jun 1977, *Shevock 5587* (CAS, RSA).

Significance. First record for Tulare Co. and Kern Plateau. Extends range southwestward from Big Pine Creek, eastern slope of the Sierra Nevada, Inyo Co.

TRAUTVETTERIA CAROLINIENSIS (Walter) Vail var. *occidentalis* (A. Gray) C. Hitchc. [*T. grandis* Nutt. ex Torrey & A. Gray in *A California Flora*] (RANUNCULACEAE).—Fresno Co., openings and damp areas in a red fir forest adj. to banks of Rancheria Creek below jct of Little Rancheria Creek, North Fork Kings River drainage, Sierra National Forest, T11S, R28E, sect. 19, 6800 ft, 21 Jul 1989, *Shevock and Clines 11874* (CAS, FSC, NY, RSA, UC, US).

Significance. First record for the southern Sierra Nevada. Extends range southward ca. 425 km from Bucks Lake area in Plumas Co. according to herbarium records at CAS, DS, JEPS, and UC. Knowledge of this range extension initially came to the author's attention while reviewing a set of unmounted specimens at CAS (obtained primarily from the southern Sierra Nevada) where the collector's name became separated from the specimens. Based on some detective work, it was later determined that the original specimen documenting this noteworthy collection was obtained on 24 Jul 1985 by *Rick Villaseñor s.n.*—James R. Shevock, Dept. of Botany, California Academy of Sciences, San Francisco, CA 94118-4599.

ARABIS PINZLAE Rollins (BRASSICACEAE).—Mono Co.: Inyo Natl. For., White Mts., Fishlake Valley drainage, N facing S slope of the canyon of the North Fork of Chia-tovitch Cr., above upper spring, 1.8 mi [2.9 km] N 55° E of Mt. Dubois summit, T2S R33E, SW ¼ of sect. 3, 10,600 ft [3230 m], 8 Jul 1987, *Morefield 4584 and Elias* (GH, RSA). Verified against type material at NSMC, with thanks to Dr. Ann Pinzl, Curator.

Previous knowledge. Known only from the type locality in the White Mts., on the NE slope of Boundary Peak in Esmeralda Co., NV (Rollins, Contrib. Gray Herb. 212:110, 1982).

Significance. First collection in CA, an extension 7 km SSE from the type locality. This plant should be considered rare in CA, but not particularly threatened since it occurs only on, and appears adapted to, steep unstable scree and sand above 3000 m. A second NV population also has been discovered: ca. 1.6 km ENE of the type locality, *Morefield 4656* (BRY, GH, K, MICH, MO, NSMC, NY, RSA, UC). *Arabis pinzlae* is closely related to, and generally grows with, *A. platysperma* A. Gray var. *platysperma*. Some plants from the new NV population appear intermediate in being more sparsely pubescent at maturity, and somewhat more robust, than "typical" *A. pinzlae*. The two taxa may not be as distinct as first suggested.

CAREX INCURVIFORMIS Mackenzie (CYPERACEAE).—Mono Co.: Inyo Natl. For., White Mts., S rim of Pellisier Flats, drying frost-heaved sod hummocks in meadow on NE shoulder of Mt. Hogue, 3.7 mi [6.0 km] S 47° E of Mt. Dubois summit, T2S R33E sect. 26 NE ¼, 12,390 ft [3775 m], 28 Jul 1988, *Morefield 4831 and Perala* (BRY, MICH, MO, NY, RSA, UC).

Previous knowledge. *Carex incurviformis* var. *incurviformis* is an uncommon alpine sedge of the Canadian Rockies in SE British Columbia and SW Alberta. The var. *danaensis* (Stacey) F. J. Hermann is a rare plant from the Sierra Nevada of Inyo, Tulare, and Tuolumne cos., CA, with one disjunct station in Park Co., CO, at 12,000–13,000 ft. Both taxa are very close to *C. maritima* Gunnerus. (Leafl. W. Bot. 2(9): 166–167, 1939; Leafl. W. Bot. 7(12):287–289, 1955).

Significance. In stature, inflorescence density, and scale shape, the new records appear intermediate between vars. *danaensis* and *incurviformis*, though somewhat closer to the former. As the latter, the new plants would be the first report for CA and the U.S.A.; as the former, they would represent the first report for Mono Co. and the Great Basin, helping to fill a large geographic gap in a rare taxon nearly endemic to the Sierra Nevada.

CAREX NORVEGICA A. J. Retzius [including *C. media* R. Brown] (CYPERACEAE).—Mono Co.: Inyo Natl. For., White Mts., wet protected places along stream in side canyon on S side of cirque at head of Indian Cr., 2.6 mi [4.2 km] N 76° E of Mt. Hogue summit, T2S R34E sect. 30 E ½, 9350 ft [2850 m], 1 Aug 1988, *Morefield 4850* (BRY, LE, MEXU, MICH, MO, NSW, NY, PE, RSA, UC); head of E branch of S fork of upper Middle Cr., Fishlake Valley drainage, T2S R33E sect. 4, 11,100 ft [3380 m], 23 Aug 1986, *Taylor 8851* (RSA).

Significance. First CA reports for this circumboreal species, a disjunct extension ca. 600 km W from the nearest known site in Garfield Co., UT, and ca. 800 km SW

from ID. The species still is not known from intervening NV, but the new reports are within 2 miles of the state line.

DRABA MONOENSIS Rollins and Price (BRASSICACEAE).—Mono Co.: Inyo Natl. For., White Mts., in moist dense sod of small E sloping spring meadow on E rim of Pellisier Flats at head of S Fork of Chiatovitch Cr., 1.2 mi [1.9 km] S 41° E of Mt. Dubois summit, T2S R33E sect. 16 SE ¼, 13,080 ft [3990 m], 28 Jul 1988, *Morefield 4834 and Perala* (BRY, GH, MICH, MO, NY, RSA, UC).

Previous knowledge. Recently described (Aliso 12(1):22–24, 1988) as narrowly endemic to the White Mts. of Mono Co., all cited populations occurring along a 5 km section of the main divide between Mt. Barcroft and White Mountain Pk.

Significance. The new disjunct population appears to be the largest known for the species, and extends its range 18 km NNW. Plants in the new population were growing abundantly and luxuriantly in a moist isolated ca. 50 m² meadow otherwise dominated by *Carex* spp. Average density was estimated visually at 100–200/m²; no plants were seen adjacent to the meadow. All other populations seen have consisted of a very few widely scattered individuals. As noted in the original description, *Draba monoensis* is dimorphic for density of stem pubescence, with about 40% of the plants glabrous or sparsely pubescent, and 60% densely pubescent. A similar ratio was observed in the new population. The new population notwithstanding, *Draba monoensis* should be considered rare and at least threatened throughout its small range. Rollins and Price (1988) noted three *Draba* largely endemic to the White Mts., but *Draba monoensis* is by far the rarest. All known populations occur in moist soil subject to disturbance, either along White Mountain Road or in places attractive to grazing animals. Cattle are capable of reaching most of the known populations, and feral horses were observed near the new population.

This note is second in a series based on collections from the White Mts. In the first (Madroño 35(2):164–166, 1988), *Taylor 8851* was cited in error under *Carex parryana* var. *hallii* (see *C. norvegica* above). The other report for that taxon remains valid.—JAMES D. MOREFIELD, Rancho Santa Ana Botanic Garden, 1500 N. College Ave., Claremont, CA 91711-3101; and DEAN WM. TAYLOR, Biosystems Analysis Inc., 303 Potrero St. Suite 29-203, Santa Cruz, CA 95060.

ANNOUNCEMENT

NEW PUBLICATIONS

LEVIN, G. A. and R. MORAN. 1989. *The vascular flora of Isla Socorro, Mexico*. 71 pp. San Diego Natural History Museum Memoir 16. \$11.00 + postage and handling (\$1.50 in USA, \$2.50 foreign) + \$0.66 (sales tax for California residents). Send orders to Library, San Diego Natural History Museum, P.O. Box 1390, San Diego, CA 92112. [The Revillagigedos Islands, located south of the Baja California Peninsula, are sometimes considered the Galapagos of the north. The islands are of much interest to biogeographers and conservationists because of their isolated position, endemism, and the threats to their biota. The systematic portion of the *Flora* includes keys, descriptions, and distributions for the plants of Isla Socorro, the largest island of the archipelago. Several new taxa are described and illustrated. The book also contains discussions of vegetation, biogeography, and of the impacts of human settlement and introduced species. Appendices list the floras of other islands of the archipelago.]